



PATENT

Case Docket No. SEPP15.001AUS

Date: January 10, 2002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : SKARP et al.
Appl. No. : 10/003,749
Filed : October 23, 2001
For : PROCESS FOR
PRODUCING ALUMINUM
OXIDE FILMS AT LOW
TEMPERATURES
Examiner : Unknown
Group Art Unit : Unknown

I hereby certify that this correspondence and all
marked attachments are being deposited with the
United States Postal Service as first class mail in an
envelope addressed to: Commissioner for Patents,
Washington, D.C. 20231, on

January 10, 2002

(Date)

Adeel S. Akhtar
Adeel S. Akhtar, Reg. No. 41,349

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TRANSMITTAL LETTER

COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A Form PTO-1449 with thirteen (13) references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

Adeel S. Akhtar
Adeel S. Akhtar
Registration No. 41,349
Attorney of Record

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Enclosed is form PTO-1449 listing thirteen (13) references that are also enclosed. This Information Disclosure Statement is being filed within three months of the filing date of this application or upon filing if this is a CPA or RCE, and no fee is required in accordance with 37 C.F.R. § 1.97(b)(1), (b)(2), or (b)(4).

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated:

January 10, 2001

By:

Adeel S. Akhtar

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Attorney of Record
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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT FEB 26 2002 (USE SEVERAL SHEETS IF NECESSARY)	ATTY. DOCKET NO. SEPP15.001AUS	APPLICATION NO. 10/003,749
	APPLICANT SKARP et al.	
	FILING DATE October 23, 2001	GROUP Unknown 1767

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1	6,015,590	01/18/00	Suntola et al.	427	255-23	09/25/96
	2	6,124,158	09/26/00	Dautartas et al.	438	216	06/08/99

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FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
	3	JP58033841	28.02.83	Japan			YES NO
	4	WO 00/55895	21.09.00	PCT			

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MAR 5 2002
TC 1700

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)						
	5	Kattelus, H. et al., "Electrical Properties of Tantalum Based Composite Oxide Films," <u>Mat. Res. Soc. Symp. Proc.</u> , Vol. 284, pp. 511-516 (1993).					
	6	Kattelus, H. et al., "Layered tantalum-aluminum oxide films deposited by atomic layer epitaxy," <u>Thin Solid Films</u> , Vol. 225, pp. 296-298 (1993).					
	7	Kim, Y. K. et al., "Novel capacitor technology for high density stand-alone and embedded DRAMs," <u>IEEE International Electron Devices Meeting, IEDM</u> (2000). <i>no page numbers</i>					
	8	Kukli, K. et al., Properties of (Nb _{1-x} Ta _x) ₂ O ₅ Solid Solutions and (Nb _{1-x} Ta _x) ₂ O ₅ -ZrO ₂ Nanolaminates Grown by Atomic Layer Epitaxy," <u>NanoStructured Materials</u> , Vol. 8, No. 7, pp. 785-793 (1997).					
	9	Kukli, K. et al., "Properties of Ta ₂ O ₅ -Based Dielectric Nanolaminates Deposited by Atomic Layer Epitaxy," <u>J. Electrochem. Soc.</u> , Vol. 144, No. 1, pp. 300-306 (1997).					
	10	Kukli, K., "Properties of atomic layer deposited (Ta _{1-x} Nb _x) ₂ O ₅ solid solution films and Ta ₂ O ₅ -Nb ₂ O ₅ nanolaminates," <u>Journal of Applied Physics</u> , Vol. 86, No. 10 (1999). <i>pp 5656 - 5662.</i>					
	11	Lakomaa, E.-L. et al., "Surface reactions in Al ₂ O ₃ growth from trimethylaluminum and water by atomic layer epitaxy," <u>Applied Surface Science</u> , Vol. 107, pp. 107-115 (1996).					
	12	Ritala, M. et al., "Surface roughness reduction in atomic layer epitaxy growth of titanium dioxide thin films," <u>Thin Solid Films</u> , Vol. 249, pp. 155-162 (1994).					
	13	Zhang, H. et al., "High permittivity thin film nanolaminates," <u>Journal of Applied Physics</u> , Vol. 87, No. 4, pp. 1921-1924 (2000).					

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EXAMINER	DATE CONSIDERED
	5/31/93
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	